

ABSTRACT OF THE DISCLOSURE

A microcontroller emulates advancement of a speed sensor for a motor, rather than having a physical movement of the speed sensor. The microcontroller calculates an advancement time based on the motor's efficiency. The microcontroller measures a motor speed
5 utilizing a tachometer signal transmitted from the speed sensor. The microcontroller subtracts the emulated advancement time from the motor speed to generate a commutation countdown time. The microcontroller switches or commutates outputs when the commutation countdown time has elapsed. The microcontroller measures an actual advance time, which is a time between the commutating of the outputs and a receipt of the next speed sensor interrupt. The
10 microcontroller calculates an anticipated motor speed by adding the actual advance time to the commutation countdown time.